



**UNITED STATES DEPARTMENT OF COMMERCE**  
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SB

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/664,293	09/18/00	VAN CRIJNEN-BEERS	M TS0926 (US)

SHELL OIL COMPANY  
LEGAL INTELLECTUAL PROPERTY  
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IM22/1022

EXAMINER

GRIFFIN, W

ART UNIT

PAPER NUMBER

1764

DATE MAILED:

10/22/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/664,293

Applicant(s)

VAN CRIJNEN-BEERS ET AL.

Examiner

Walter D. Griffin

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Specification*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it uses the form and legal phraseology often used in patent claims. Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

Claim 4 is objected to because of the following informalities: In the last line of claim 4, the expression "low oxide refractory" should be changed to "low acidity refractory oxide".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-16 are indefinite because the term "low acidity refractory oxide" in claims 1, 4-6, 15, and 16 is a relative term which renders the claims indefinite. The term "low acidity refractory oxide" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 12 is also indefinite because it is unclear how a hydroprocessing process can optionally include hydrogen. It would appear that hydrogen must be present in order to hydroprocess a hydrocarbon.

Claims 12-14 are also indefinite because the term "elevated temperature and pressure" in claim 12 is a relative term which renders the claims indefinite. The term "elevated temperature and pressure" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Absil et al. (5,053,374) in view of Denton (4,256,682).

The Absil reference discloses a method for preparing a catalyst comprising a zeolite and a low acidity refractory oxide that is free of alumina. The process comprises preparing an extrudable mass of zeolite, oxide, and water. At least a portion of the oxide may be in a dry particulate form. An example of the oxide is silica and an example of the zeolite is ZSM-5. The amount of zeolite in the catalyst can range from 1 weight percent to 99 weight percent.

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Following extrusion, the catalyst is dried and calcined. The resulting catalyst can be subjected to a dealumination process. A hydrogenation metal such as platinum, palladium or nickel can be added to the catalyst. The catalyst can be used in hydrocarbon hydroprocesses such as hydrocracking and isomerization. Hydrocracking and isomerization are some of the reactions occurring during dewaxing. (See col. 2, lines 11-37; col. 4, lines 4-62; and col. 5, lines 7-59.

The Absil reference does not disclose the presence of an amine in the extrudable mass. It also does not disclose xylene isomerization.

The Denton reference discloses a method of preparing silica gel pellets by adding ammonia to a silica gel, compressing the mixture into pellets, drying, and calcining. Adding the ammonia raises the pH to the range of about 8 to 10. Example 1 indicates a mixing time of 10 minutes and then extruding the mixture. See col. 1, lines 32-37; col. 2, line 16 through col. 3, line 65; col. 4, lines 6-48; and example 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of making the catalyst of Absil by including ammonia in the mass as suggested by Denton because crush strength of the catalyst would be increased. The resulting catalyst would necessarily have the characteristics of claims 15 and 16.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the hydroprocess of Absil by isomerizing xylene because the catalyst is effective for isomerizing and therefore would be expected to be effective for isomerizing xylene.

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Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Absil et al. (5,053,374) in view of Denton (4,256,682) as applied to claim 9 above, and further in view of Breck et al. (4,503,023).

The previously discussed references do not disclose dealumination with a fluorosilicate salt.

The Breck reference discloses a zeolite dealumination process which utilizes a fluorosilicate salt as claimed. See col. 3, line 24 through col. 5, line 13.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of making the catalyst of Absil by dealuminating as suggested by Breck because Absil discloses that the zeolite can be dealuminated and the process of Breck results in that desired effect.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art not relied upon discloses catalysts and methods for preparing these catalysts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is 703-305-3774. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703-308-4311. The fax phone numbers for the

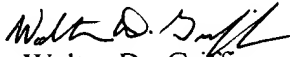
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organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

  
Walter D. Griffin  
Primary Examiner  
Art Unit 1764

WG  
October 17, 2001